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SHORTLEAF PINE



Photo by Courtesy U. S. Forest Service.

11-YEAR-OLD SHORTLEAF PINE, 25 FEET IN
HEIGHT

MARYLAND STATE BOARD OF FORESTRY
BALTIMORE, MARYLAND.

SHORTLEAF PINE.

(*Pinus echinata*)

The shortleaf pine, one of the two "yellow pines" of the South, which extend north into Maryland, is comparatively unknown in the State, and its adaptability to forest management is greatly underestimated or overlooked entirely. In the South, shortleaf pine is second to the longleaf pine in amount, cut, and quality of material. The lessening of the supply of longleaf is putting shortleaf to the front, and the latter is destined to be a valuable forest tree over a great territory, because its growth is faster than the longleaf, and the lumber is nearly as valuable. Because of the ease of handling this pine, the rapidity with which it reproduces itself, and the yield at maturity, shortleaf pine can not be overlooked as a factor in the renewal of tree growth on cut-over and abandoned farm lands within its range. To the farmer and small woodland owner, this species is especially attractive as it can be grown with little or no trouble and yields strong, tough timbers so much in demand locally.

Range.

Commercially, shortleaf pine is found in the counties of Southern Maryland, namely: Charles, St. Mary, Calvert and Prince George. It occurs, however, all over the State, as isolated specimens or in small groups.

Characteristics.

Tall, with little taper, the shortleaf pine is usually clear of limbs for two-thirds of its length, and has a small rounded shallow crown. Even trees grown in the open are clear of limbs for a considerable distance above ground. The bark on young trees is smooth greenish brown in color, gradually becoming thick and cleft into square plates which shed dark brown scales tinged with cinnamon red.

The needles are borne two in a cluster, about 2 to 4 inches long. It can, however, be easily distinguished from spruce pine, which also has two needles in a cluster of about the same length, by the general thrifty, clean appearance of the tree, compared with the scrubby, persistent side branches of the latter.

The cones of the shortleaf are rather small, and each scale is armed with a short recurved prickle. The cones ripen in October of the second year, and allow for wide dissemination of the winged seed.

Soil And Moisture.

Shortleaf pine grows best on sandy clay soils. They should be deep, well drained, and not too sandy. It is not suited for planting on bottom lands or on flat, poorly drained uplands. It is very common on sandy foothills of the Piedmont region and on river hills; also on poor sandy and clayey flat lands, but the growth on the latter sites is not so good.

Enemies.

Like the loblolly pine, the shortleaf pine leaves most of its enemies in the states to the South. In fact, individuals are so scattered through the State that it is hard for any insect or fungus to get in a concerted attack. For the purposes of tabulation, however, note should be made of the Southern pine beetle, which, when attacking any member of the yellow pine group, in large numbers, kills even the most vigorous trees. A sure indication of its presence is to be found in little tubes of pitch on the trunk, and a sickly yellowish brown color to the needles. Peeling and burning the bark of infested trees is an effective control measure that will prevent the spread of the beetles to other trees.

On account of the thinner bark, shortleaf pine is less resistant to fire than the loblolly pine. Extreme care should be used to protect plantations of shortleaf, especially during the first 20 years, by carefully maintained fire lines.

Uses Of The Wood.

The wood of the shortleaf pine is straight grained, resinous, has alternate hard and soft concentric rings, is moderately heavy, strong, and fairly durable in contact with the soil. It is rather easily worked. The shortleaf pine timber cut in Maryland has been sold as a general lumber and construction timber. Most of the lumber of this species goes into house building material. A further demand for this lumber has been made by the boat building industries. A more recent use, and one that will expand in the future, is the use of the wood for the making of the "kraft" papers, a strong brown wrapping paper. Future uses in Maryland of shortleaf pine will be for general farm lumber and pulpwood.

Suitability For Planting.

Shortleaf pine is a tree of exceptional merit for forest planting because of its rapid growth, heavy yield, and ease of management. It is admirably adapted to pure stands, and can be readily established on any soil adapted to its growth.

As a tree for reforesting slopes and ridges shortleaf pine is especially valuable, because of its vigor and hardiness on well drained or moderately dry soils. The tree may be planted on suitable soil throughout the State of Maryland, but it will do best on the sites that are too dry for the white pine. It is particularly adapted to the region east and south of the Blue Ridge chain of mountains. It is not suitable for planting on the sandy soils of the Coastal Plain, as it can not compete with the loblolly pine, particularly on the Eastern Shore, but can be planted successfully on the higher elevations of the Coastal Plain in Southern Maryland. It should not be planted on shallow soils, on bottom lands, or on flat, poorly-drained uplands.

Yields And Returns.

Maryland can not show data on the costs of shortleaf pine plantations or the yields that can reasonably be expected from them. The States to the south of Maryland furnish the best information of this character. Virginia and South Carolina, especially, contain much typical shortleaf pine lands that are much like our own and the figures for such lands should normally be applicable to Maryland.

YIELD PER ACRE OF LUMBER IN FULLY STOCKED STANDS.

Age Year	Good Land Board Feet	Medium Land Board Feet	Poor Land Board Feet
20	5700	3200	700
25	8400	5200	2100
30	11200	7300	3400
35	14000	9400	4800
40	17100	11700	6500
45	20300	14300	8300
50	23700	17000	10300
55	27000	19700	12400
60	30100	22400	14700

NOTE:—The State Board of Forestry maintains a forest nursery where trees suitable for forest planting are grown and distributed at cost to landowners of the State. Full particulars may be obtained upon application.